U.S. Patent Application Serial No. 09/701,512

REMARKS

Applicants note that an object of the third step of the present invention is to move Mn contained in the particle of the hydrogen absorbing alloy to the surface of the particle of the hydrogen absorbing alloy by heat-treating and sintering only the particles of the hydrogen absorbing alloy, which are shown in Ise et al., treated in the acid solution at a temperature of not more than the melting point of the particles of the hydrogen absorbing alloy in a hydrogen atmosphere.

An object of Rendina is to produce the complex in which various components are layered on the primary material including hydrogen absorbing alloy particles, and the principal purpose for sintering according to Rendina is to enhance the binding of the various layers. Therefore, Applicants assert that Rendina is different from the present invention in which only the particles of the hydrogen claim?

absorbing alloy are sintered.

As a result, the present invention is different from Rendina as to the materials to be sintered and the purpose for sintering, therefore, the present invention is not suggested by Rendina. In order to clarify this point, the present amendment clarified that only the particles of the hydrogen absorbing alloy are heat-treated and sintered, and that Mn contained in the particle of the hydrogen absorbing alloy is moved to the surface of the particle of the hydrogen absorbing alloy by sintering. Applicants submit that no new matter is added. The present claims are supported on page 11, lines 3-12 of the specification of the present invention, which shows that manganese (Mn) contained in the particle of the hydrogen absorbing alloy is moved to the surface of the particle of the hydrogen absorbing alloy.

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The above amendments are believed to place the claims in proper condition for examination.

Early and favorable action is awaited.

In the event that any fees are due in connection with this paper, the Patent Office may charge our Deposit Account No. 01-2340.

Respectfully submitted,

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PATENT TRADEMARK OFFICE

Enclosure: Version with Markings to Show Changes Made

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<u>VERSION WITH MARKINGS TO SHOW CHANGES MADE</u> Serial No. 09/701,512

IN THE CLAIMS:

Please amend claim 2 as follows:

2. (Twice amended) A method of producing a hydrogen absorbing alloy for an alkaline storage battery, characterized in that

a first step of obtaining particles of a hydrogen absorbing alloy having a crystal structure of a $CaCu_5$ type and represented by a composition formula $MmNi_xCo_yMn_zM_{1-z}$ (in the formula, M is at least one element selected from aluminum and copper, x is a composition ratio of nickel and satisfies $3.0 \le x \le 5.2$, y is a composition ratio of cobalt and satisfies $0 \le y \le 1.2$, and z is a composition ratio of manganese and satisfies $0.1 \le z \le 0.9$, with the proviso that the sum of x, y, and z satisfies $4.4 \le x + y + z \le 5.4$),

a second step of treating said particles of the hydrogen absorbing alloy in an acid solution, and

a third step of heat-treating by sintering the <u>only the</u> particles of the hydrogen absorbing alloy treated in the acid solution at a temperature of not more than the melting point of the particles of the hydrogen absorbing alloy in a hydrogen atmosphere <u>and</u> thereby moving Mn contained in the particle of the hydrogen absorbing alloy to the <u>surface of the particle of the hydrogen absorbing alloy</u>

are carried out, to produce the hydrogen absorbing alloy, the hydrogen absorbing alloy having a sintered surface region and a bulk region covered with the surface region and satisfying the condition of $a/b \ge 1.21$, wherein a is the sum of respective abundance ratios of atoms Ni, Co, and Mn in the surface region and wherein b is the sum of respective abundance ratios of atoms Ni, Co, and Mn and the surface region having an atom manganese.